

FRAME PREWRITING IN A LIQUID CRYSTAL DISPLAY

ABSTRACT OF THE DISCLOSURE

A liquid crystal display (LCD) having a matrix of liquid crystal pixels is provided. A plurality of digital-to-analog converters (DACs) are coupled to the LCD matrix through
5 analog voltage switches and are adapted to produce output voltages that are applied to the pixels in the LCD matrix. Through the combination of DACs and analog voltage switches, groups of pixels are pre-written to an average value of the pixels in that group which is fairly close to their final voltage values of each pixel so that the liquid crystal material can begin slewing and settling as early as possible. Then one or more writes to
10 each of the pixels is made of the precise voltage value desired at each of the pixels. Alternate, adjacent odd and even rows of pixels may be written together and then only the even or odd rows are finally written to obtain the desired final voltage values at each of the pixels in the LCD.